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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,638	09/15/2003	Jiro Hiraiwa	242742US3	8007
22850	7590	08/21/2007	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			ZHENG, LOIS L	
		ART UNIT	PAPER NUMBER	
		1742		
		NOTIFICATION DATE	DELIVERY MODE	
		08/21/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/661,638	HIRAIWA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Lois Zheng	1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 07 June 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-8 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/7/2007</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|   | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1-2 are amended in view of applicant's amendment filed 7 June 2007.

Therefore, claims 1-8 are currently under examination.

### ***Status of Claims***

2. The rejection of claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over WO 01/77412 in view of Marumo et al. US 4,790,859(Marumo), and further in view of Tseng et al. US 6,656,334 B2(Tseng), is withdrawn in view of applicant's claim amendment that "gases in the at least three compartments do not mix together".

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/77412, whose English equivalent is Tojo et al. US 6,518,105 B2(Tojo'105), in view of Marumo et al. US 4,790,859(Marumo), and further in view of JP2000-160390(JP'390).

The rejection ground for the claims 1-8 is maintained for the same reasons as stated in paragraph 6 of the previous Non-Final Office Action mailed 7 February 2007.

Regarding the amended feature that the three compartments are "separated from each other by internal partition walls such that gases in the at least three compartments do not mix together", JP'390 teaches separating the control system and the

Art Unit: 1742

electroplating cell in separate rooms and the oxygen and hydrogen gases are also discharged in these separate rooms to avoid potential hazardous or unsafe conditions due to cross-contamination(paragraph [0045, 0057]). In addition, JP'390 does not require that the separate rooms for housing the control system and the electroplating cell to be located away from each other. Therefore, the examiner considers two rooms located right next to each other with a shared wall within the scope of JP'390's invention.

Therefore, the examiner maintains her position that Tojo'105 in view of Marumo and JP'390 teach the claimed separation of at least three compartments via internal partition walls and the gases in the compartments of Tojo'105 in view of Marumo and JP'390 do not mix together as claimed.

#### ***Response to Arguments***

5. Applicant's arguments filed 7 June 2007 have been considered but are not persuasive.

Applicant argues that **two separate rooms** as taught by JP'390 do not meet the limitation of the claimed box-shaped body being divided by **internal partition walls** into **least three compartments**.

The examiner respectfully disagrees. JP'390 teaches separately housing an electrochemical device such as an electroplating unit and a control system for the electrochemical device to avoid contamination to one major component of the apparatus, such as the electroplating unit, during maintenance operations of another major component of the apparatus, such as the control system. This setup also avoids

Art Unit: 1742

potentially unsafe conditions due to mixing of oxygen and hydrogen gases. The fluorine gas generator of Tojo'105 in view of Marumo would have also been concerned with the same potential cross-contamination issues during maintenance work on the electrolyzer, the first and/or the second adsorption units and potential hazardous conditions due to the mixing of product gases. Therefore, one of ordinary skill in the art would have found it obvious to provide separate housing for the major components of the fluorine generator of Tojo'105 in view of Marumo(i.e. the electrolyzer, the first adsorption unit and the second adsorption unit) in order to avoid potentially unsafe cross-contamination of the product gases and improve routine maintenance as suggested by JP'390. In addition, having the two rooms right next to each other sharing a common wall(i.e. internal partition) would also be within the scope of JP'390's teaching. The examiner maintains that the building housing the rooms implicitly as taught by Tojo'105 in view of Marumo and JP'390 reads on the claimed box-shape body and the shared common walls between the rooms as taught by Tojo'105 in view of Marumo and JP'390 reads on the claimed internal partition walls. Therefore, the examiner maintains that the combination of Tojo'105, Marumo and JP'390 is proper.

Regarding applicant's remaining arguments, the examiner does not find applicant's arguments persuasive for the same reasons stated in the rejections of claims 3-8 above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lois Zheng whose telephone number is (571) 272-1248. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LLZ

*R*  
HOY KING  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY S. DIVISION  
*J*